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# REFLECTIONS, SUCCESSES AND PITFALLS OF COORDINATING ONLINE DISCUSSION FORUMS IN A FOREIGN LANGUAGE

**Peter A Lewis, Genevieve Gray**

*Queensland University of Technology (AUSTRALIA)*

*p.lewis@qut.edu.au, g.gray@qut.edu.au*

## **Abstract**

The advent of e-learning has seen the adaptation and use of a plethora of educational techniques. Of these, online discussion forums have met with success and been used widely in both undergraduate and postgraduate education. The authors of this paper, having previously used online discussion forums in the postgraduate arena with success, adopted this approach for the design and subsequent delivery of a learning and teaching subject. This learning and teaching subject, however, was part of an international collaboration and designed for nurse academics in another country – Vietnam. With the nursing curriculum in Vietnam currently moving to adopt a competency based approach, two learning and teaching subjects were designed by an Australian university for Vietnamese nurse academics. Subject materials constituted a DVD which arrived by post and access to an online platform. Assessment for the subject included (but was not limited to) mandatory participation in online discussion with the other nurse academics enrolled in the subject. The purpose behind the online discussion was to generate discourse between the Vietnamese nurse academics located across Vietnam. Consequently the online discussions occurred in both Vietnamese and English; the Australian academic moderating the discussion did so in Australia with a Vietnamese translator. For the Australian University delivering this subject the difference between this and past online discussions were twofold: delivery was in a foreign language; and the teaching experience of the Vietnamese nurse teachers was mixed and frequently very limited. This paper will provide a discussion addressing the design of an online learning environment for foreign correspondents, the resources and translation required to maximise the success of the online discussion, the lessons learnt and consequent changes made, as well as the rationale of delivering complex content in a foreign language. While specifically addressing the first iteration of the first learning module designed, this paper will also address subsequent changes made for the second iteration of the first module and comment on their success. While a translator is clearly a key component of success, the elements of simplicity and clarity in hand with supportive online moderation must not be overlooked.

Keywords: Innovation, technology, e-learning, education.

## **1 INTRODUCTION**

The advent of e-learning has seen the adaptation and use of a plethora of educational techniques. In particular, asynchronous online discussion groups (AODG) have been used widely in both undergraduate and postgraduate education (Beldarrain, 2006). Rather than synchronous real time online 'chat', the asynchrony of AODG allows students to overcome constraints of time and distance and to post a comment from anywhere, at any time, thus providing flexibility in terms of when and where learning and interaction occur. AODG promise to improve interaction among learners (Laurillard, 2007), and between teachers and students (Legg, Adelman, Mueller & Levitt, 2009; Conole & Fill, 2005; Reeves, Herrington & Oliver, 2002). In addition to this, AODG also promise to improve the quality of discussion and to allow every student the chance to discuss and respond (Branon & Essex, 2001; Laurillard, 2007). They are believed to facilitate desirable processes such as collaboration (Leasure, Davis & Thievon 2000), to allow time for reflection and to promote clear thinking, and to enable quieter students opportunities to contribute as much as those students who tend to dominate face-to-face interaction (Ng & Cheung, 2007). Leasure et al., (2000) found that, among distance students AODG improved confidence, writing skills as well as the quality of the questions the students posed. Magnussen (2008) meanwhile, found that it was much harder for students to hide their weaknesses when there was a record of their comments. Furthermore, students were unable to opt out of participation in the same way as they could in a face-to-face tutorial class.

Despite its perceived benefits, integrating AODG into student teaching is proving challenging (Bliuc, Ellis, Goodyear & Piggott, 2010; Heilsen & Josephsen, 2007; Laurillard, 2007; Orton-Johnson, 2009;

Zhou & Xu, 2007). Some of the earlier claims made for e-learning may have been too optimistic, and probably did not take sufficient account of the various types of e-learning with recent reports of many breakdowns (Hannon, 2009). AODG in particular have been singled out as difficult to coordinate with other teaching and learning activities. This paper will provide a discussion addressing the design of an online learning environment for foreign correspondents, the resources and translation required to maximise the success of the online discussion, the lessons learnt and consequent changes made, as well as the rationale of delivering complex content in a foreign language. While specifically addressing the first iteration of the first learning module designed, this paper will also address subsequent changes made for the second iteration of the first module and comment on their success.

## **2 BACKGROUND**

In 2002 the Vietnam Nurses' Association (VNA) developed a national action plan for strengthening nursing and midwifery services within Vietnam. This plan focussed the VNA on seeking ways to upgrade both undergraduate and postgraduate nursing education. With current nurse education in Vietnam primarily delivered by medical doctors, the VNA has influenced government bodies to consider a review of national nurse education. It was felt that through international assistance and collaborative partnership, the VNA could strengthen teaching and build capacity in nurse education in Vietnam.

Subsequent to an international seeding grant, the VNA and Queensland University of Technology (Australia) (QUT) formed a partnership in 2007 for the development of international standards of nursing practice and education in Vietnam. The partnership directions were influenced by evolving needs of the Vietnamese health system which required international standards for nurse education and nursing workforce regulation. In order to form a useful partnership with the VNA, QUT undertook series of planned strategies to develop an understanding of nursing development and nursing education policy in Viet Nam. It was determined further funding would be required to for QUT to assist Vietnam in improving their nursing education. 2008 saw The Atlantic Philanthropies approve a grant of \$6.3 million to QUT to support nursing training and development in Vietnam. The Vietnam project would provide intensive short-term training and postgraduate scholarships, help in developing nursing education in lead universities in-country, and assist with nurse teacher conference development and policy development. Overall the partnership between QUT and the VNA has resulted in a commitment to extensive reform of nurse education and ultimately nursing practice by key stakeholders of health care and educational services by the year 2011.

Traditionally, Vietnamese nursing education has been primarily delivered by medical staff with few nurses involved. A primary approach in the reform of Vietnamese nursing education was for nurses to take responsibility of their own education and to have nurses educate nurses in preference to medical staff. Consequently, large numbers of new nurse academics were employed and most required assistance in developing skills to educate students. To assist in the development of these skills, two learning and teaching modules were designed by QUT for Vietnamese nurse academics. Owing to the geographic context the learning and teaching modules were designed for external delivery.

## **3 MODULE DEVELOPMENT**

### **3.1 Module delivery and content**

In developing the learning and teaching modules the authors considered both the context in which they would be delivered as well as the delivery strategies available. The consumers for these modules were nurse academics working within a nurse education system in a state of severe flux. While the educational experience of most Vietnamese nurse academics was limited, there were some who had considerable experience. As such, it was decided the content contained in the first learning and teaching module would provide the necessary knowledge to deliver a subject within the designated nursing curriculum. Divided into three sections it addressed how learners learn, methods and styles of teaching, and how teaching might be structured to meet the learners needs. The second module was designed to provide the necessary knowledge to successfully assess nursing students. It addressed different types of assessments, how to select specific assessments to best measure learning, and how to evaluate the learning, teaching and assessments within a subject. As the Vietnamese nurse academics were spread across the whole of Vietnam and the institution delivering the learning and teaching modules was based in Australia, offering the modules by distance education was the only realistic option.

The learning and teaching distance modules were presented on a DVD and arrived by surface mail. All module materials were provided in English. As QUT was offering credit for the distance modules toward one subject in their graduate study programme, all participants were required to speak reasonable English to ensure an opportunity to both study and have a qualification conferred in English. The first distance module DVD contained a PDF document (39 pages) structured under eight headings: introduction; study plan; assessment; section 1 learning; section 2 teaching; section 3 aligning learning and teaching; readings; and glossary. The PDF contained all module materials and hyperlinks to websites for additional readings if copyright restrictions limited their inclusion. The PDF also contained hyperlinks to eight vodcasts (short videos) presented by the module coordinator explaining the assessments, summarising the content areas, and posing questions in an attempt to engage learners. Access instructions for an online Learning Management System using the 'Blackboard' platform could also be found on the DVD.

### **3.2 Module assessment**

Assessment for the module was twofold. The first item required active discussion in an AODG; the second assessment item was a written assignment. In the module PDF layered within the content were 30 questions – each of these was specific to individual areas of content. Every question required online discussion in the AODG. Each Vietnamese nurse academic enrolled in the first iteration of the module was responsible for coordinating the discussion around a single allocated question. The participant was to post a minimum of five comments specific to their question which included providing an answer to the question as well as responding to other participant comments and raising other issues they felt important or pertinent to the question. It was also expected a further four comments be posted across any of the other 29 AODG questions (to ensure group discussion and interaction). To progress the academics sequentially through the module, rather than expect simultaneous discussion across all 30 questions, five questions were identified for discussion fortnightly (as question groupings were specific to individual areas of module content). It was intended this would pace the participant progress through the module over the 12 week semester. Questions 1-5 would be addressed in weeks 1 and 2, questions 6-10 in weeks 3 and 4 and so on until finally questions 26-30 would be covered in weeks 11 and 12. As nurse academics in Vietnam speak Vietnamese as their first language, it was decided the participants could post their AODG comments in either Vietnamese or English. It was felt the AODG would generate greater discourse between the Vietnamese nurse academics if they were provided an opportunity to converse in their native tongue. It was also felt the AODG should provide an opportunity for participants to clearly understand all posts – post interpretation should not be limited by the participants mastery of their second language. It was felt that in engaging in the AODG the Vietnamese nurse academics would find this a positive experience as they realised the experience they already possessed. Discussion would also be context specific to the Vietnamese education environment. The Australian academic moderating the AODG accessed the AODG twice weekly with a Vietnamese translator.

The second assessment item for the module was an assignment which could be completed either individually or as a group of two, three or four. This was to be submitted in English. The assignment required the nurse academics to attend and critique a teaching session. This was done with the use of four headings which would provide direction for the observation.

## **4 MODULE DELIVERY**

Thirty two Vietnamese nurse academics from eight different colleges and universities across Vietnam were enrolled in the first iteration of the learning and teaching distance module.

### **4.1 Unit coordinator contact**

As with most distance education courses, communication with the unit coordinator was encouraged. This was clearly outlined for the participants in the PDF contained on the module DVD. Over the course of the semester – apart from the online submission of the assignment – nine of the participants contacted the unit coordinator for information. Of these nine participants, six contacted the unit coordinator one more than one occasion.

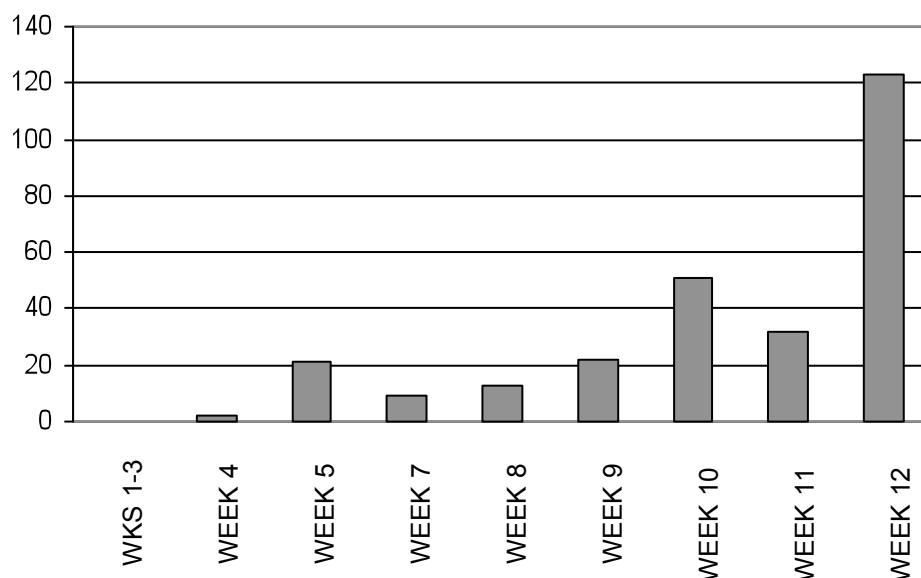
### **4.2 Online interaction**

Past study completed by the vast majority of Vietnamese nurse academics was by internal mode and undertaken in Thailand, Malaysia or Finland. To ease the Vietnamese nurse academics transition to

distance study, the QUT academic conducting the module expected all Vietnamese participants enrolled in the module to organise an online meeting with him using Skype. The purpose of this online meeting was to ensure the Vietnamese nurse academics were aware of the expectations placed upon them, to ensure they understood the assessment items and deadlines, and to provide a familiarity with the module coordinator to increase their likelihood of contact in the event of problems. Surprisingly, of the 32 participants only five participants (two from one institution and three from another) contacted the module coordinator. Despite numerous follow-up emails from the module coordinator and the promise of a Vietnamese translator with the coordinator, the Vietnamese nurse academics could not be coerced into an online meeting.

Clear expectations were provided about the number and frequency of online posts which were required by each Vietnamese nurse academic. Each Vietnamese nurse academic was also clearly allocated a question for which they were expected to lead the discussion. Despite clear expectations, no online postings were made in the first three weeks of semester (Fig. 1). At the commencement of the fourth week an email was sent in English asking participants to involve themselves in the online discussion. Two postings were made. The same email was sent in Vietnamese in week five which resulted in 21 postings. Further to this (as outlined in Fig. 1) emails were sent to Heads of School with little effect. It was not until the module coordinator released a tally of participant involvement in the AODG to participants and their Heads of School identifying participant and institutional activity that postings increased – 51 postings were made in the six days following this release. In an attempt to maintain momentum the unit coordinator threatened academic penalty for lack of involvement in the AODG the following week – 32 postings were made subsequent to this. At the commencement of the final week a list was again emailed to participants and their Heads of School identifying not only those participants who had incurred an academic penalty, but also noting those who performed well in the previous week. Postings subsequent to this numbered 123.

FIGURE 1: FREQUENCY OF COMMENT POSTS BY COORDINATOR ACTION



LEGEND:

Weeks 1-3: no action

Week 4: email in English asking for AODG participation

Week 5: email in Vietnamese asking for AODG participation

Week 7: email in English asking participants to confirm their module enrolment

Week 8: email threatening Head of School contact if AODG participation not commenced

Week 9: non-active AODG participant Heads of School emailed

Week 10: all module participants and Heads of Schools emailed tally of participant and institution AODG posts (tally is identified)

Week 11: academic penalty threatened for AODG non participation

Week 12: all participants and Heads of Schools emailed participant academic penalties incurred (list is identified)

Vietnamese nurse academics when participating in the AODG for the most part were interactive with each other and responded to each others comments in a positive manner. All discussion with the unit coordinator moderating the discussion was positive and on a number of occasions participants in their post, would ask for specific feedback from the moderator. Of the 273 posts made by the participants 216 were in Vietnamese. Posts made by the unit coordinator were in both English and Vietnamese. In weeks 1 to 5 moderator posts were in English. Weeks 6 to 8 moderator posts were translated into Vietnamese in an attempt to stimulate AODG discussion. Weeks 9 to 12 saw moderator posts return to English as the translation seemed to have little effect on AODG activity. Participants made no comment as to whether or not the moderator posts were more beneficial in English or Vietnamese. A number of junior Vietnamese nurse academics, however, commented on the lack of AODG activity by their senior counterparts.

*Some questions are well discussed. However, there are not many senior nurse teachers involving into the discussion while junior nurse teachers expect to know more about experiences that senior teachers have had and how they deal with difficulties in nursing learning and teaching. It is possible senior teachers are so busy with their workload so they cannot participate into the online discussion.*

One intention behind designing the module to use an AODG was trying to achieve a high level of online interaction between participants. It was felt this may assist in the development of an informal national network between the Vietnamese nurse academics. Another intention was that while a first world country was consulting with them in relation to their teaching practices, online discussion between each other with positive moderation from the unit coordinator would assist the Vietnamese nurse teachers to see they already practice some positive teaching strategies. As such, unit coordinator moderation was limited to one hour sessions twice per week (the two hours of moderation each week also incorporated translation). Some nurse academics felt isolated as they felt they were not receiving the Western direction they believed they required.

*It will be more convenient if the online discussions are wrapped up and clarified by Dr Peter because our comments are mostly individual. We actually need comments and contributions from Dr Peter for each of our answers. We do need to know more about teaching experience that you've got in your country.*

Importantly, the strategy of limiting moderator involvement ensured that Vietnamese nurse academics started to moderate their own discussions and answers. Rather than wait for the unit coordinator to comment on a specific problem which was raised other nurse academics would provide a response drawing upon their experiences. This was particularly evident in the second iteration of the distance module after the formula for the AODG was altered.

*This module is interesting and useful because it has two components. The online discussion component provides a forum where nurse teachers across Vietnam can meet and learn from each other. Through the online forum, nurse teachers are able to have their questions answered and to contribute their opinions to those who are in need. It means, we – nurse teachers – are also learners helping each other and involving into our discussion so we can understand in depth the learning and teaching strategies presented by this module.*

### **4.3 Assignments**

The second assessment item required the participants to submit their assignment via email to the unit coordinator. All assignments submitted used Microsoft Word. Using 'Track Changes' to provide each participant with easily identified feedback, the unit coordinator made comments and changes which were clearly visible. The document was then converted to PDF format and emailed back to participants. Four participants contacted the unit coordinator to indicate their appreciation of the process and the quality of the feedback they received.

## 5 MODULE EVALUATION

Of the 32 Vietnamese nurse academics who enrolled in the learning and teaching distance module, 29 completed and submitted both assessment items placing themselves in a position to complete the module. Of the 29, 22 were awarded a grade of 50% or greater and passed the module.

### 5.1 Lessons learned

Reflecting on the delivery of the first learning and teaching distance module there are a number of considerations. Of primary concern is the level of the content contained within the module itself. Was the content in the PDF adequate and delivered at a level which was accessible for the Vietnamese nurse academics? Were the vodcasts of benefit in engaging the academics in the content? Were the AODG successful? Was the assignment a success? Overall, participant feedback for the distance module was very positive. Possibly providing greater support for the module, however, was the uptake by Vietnamese nurse academics for the second iteration. Fifty three nurse academics enrolled in the learning and teaching distance module in the following semester. One participant commented:

*This is a well designed module because of the following reasons. It helps connect and build up relationship amongst nurse teachers. Participants can learn and share experience from each other. Questions designed for the online discussion are diverse. The module of its kind also presents a simple, economic and convenient learning method. This module does help improve my future teaching strategy because it creates a good environment where teachers can share their own teaching experience. It helps us access to new teaching methods. This is the first time I've enrolled and participated in a distant learning module. I think I will apply the teaching strategies that I've learnt from this module for my school.*

Extensive comment from participants reinforced that module content was delivered at an accessible level. Additionally, the external resources were easily accessed and found to be of benefit. The vodcasts were also recognised as beneficial. While no comments reflected that the vodcasts served to engage the participant in their learning, they were seen as providing good content summary and good opportunities to determine the level of knowledge gained across specific components of the module. The assignment and feedback was also recognised as a success. As was clearly demonstrated in Figure 1 and 'Online Interaction', the AODG proved problematic.

Reviewing module feedback and considering participant interaction, the authors believed the AODG failed on a number of levels. Possible causes for failure were: first time online academic interaction for Vietnamese nurse academics; protracted timelines for the occurrence of the AODG; too many questions to address; confusion surrounding expectations with regard 'leading a question'; level of expectance from the module coordinator; lifestyle of the Vietnamese nurse academic; and difficulty of online access and site navigation. Reviewing Figure 1 also indicates the Vietnamese nurse academics to require some stimulus for involvement.

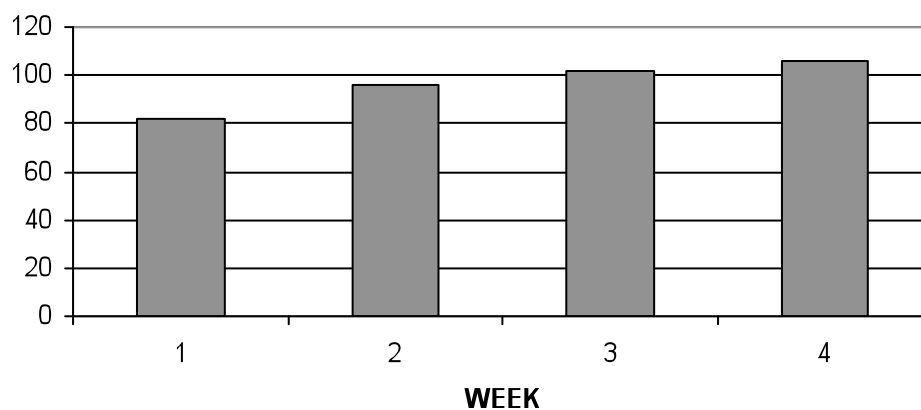
Following discussion with Vietnamese nurse academics it became clear that many held two jobs and worked seven days per week. Additionally, the Vietnamese have a strong family focus and each academic despite working two jobs, still has duties within the extended family. With so many responsibilities it is likely the most pressing problems will be addressed first with changing priorities from week to week. As such, the flexibility of distance learning is one aspect of the module which should be fostered and capitalised upon. While flexible, the AODG were conducted over a full semester thus requiring weekly progress. Additionally, with such a multitude of questions the task must have seemed on some occasions, difficult. The level of academic discussion was self sorting as participants determined this themselves. Leading a question, however, proved difficult as AODG participation fluctuated wildly. Lastly, QUT information technology systems require users to provide a new access password every 60 days. Consequently, while all Vietnamese nurse academics could access the AODG site early in the semester, a number of participants were unable to access the AODG at the end of semester (as they had not been accessing the site regularly their password expired).

## 6 SUBSEQUENT CHANGES

The primary change in the learning and teaching distance module was the approach taken for the AODG. The number of AODG questions were reduced from 30 to 12. No participant was given the responsibility of coordinating a question; posts could be made wherever it interested the academic (all required posts in one question or spread across all 12 were both equally acceptable). Owing to the

number of posts and the reduction in questions, however, discussion was not clumped in individual questions – it attained a relatively equal spread. Importantly, rather than run over a full semester, the AODG were restructured for delivery over a four week period in the middle of the semester. To avoid the potential problem of site access, a chat room was opened the week prior to the first week of AODG discussion with the expectation all participants would post a welcome comment. The primary purpose here was for all participants to confirm their site access. Given, the pressure points for AODG involvement identified in the first iteration of the distance module, academic penalties for non-participation were clearly outlined in module content. Participants were to post a minimum of 10 comments over the four weeks. Additionally, to ensure continued engagement over the four week block, they were also required to post a minimum of two comments per week in three of the four weeks. The AODG was worth 30% of their final grade. Academic penalties incurred were: 5% per comment less than 10 (i.e. if they posted eight comments they would incur a 10% deduction from their possible 30%); and 10% for not posting a minimum of two comments in a single week. At the conclusion of each weeks discussion all participants and Heads of School were emailed a tally list identifying each participant, their number of comments posted, and any academic penalties incurred. AODG participation in the second iteration of the distance module was well attended and consistent across the four weeks (Figure 2).

**FIGURE 2: COMMENT POSTS PER WEEK  
(DISTANCE MODULE ITERATION 2)**



The satisfaction of the Vietnamese nurse academics with the AODG was clear in the second iteration of the learning and teaching distance module.

*The online discussion component is really useful. I am getting more interested in this online forum. I believe that knowledge and experience I've learnt from my colleagues through the online discussion will be also useful for teaching career of a nurse teacher.*

Additionally, Vietnamese nurse academics recognised the flexibility of the distance learning and teaching module. This was likely due to the changes in expected engagement with the module content as this could now be grouped rather than spread across the full semester.

*I acknowledge that this is a very new learning method. It is convenient and flexible and able to attract a large number of participants. We can learn anywhere at our convenience. It also suits scheduled workload and condition of each of us.*

Importantly, AODG discussion made it clear to participants that some of their existing teaching practices were sound. Online discussions also fostered collaboration and a sharing of ideas amongst the participants and their own contributions rather than just the moderators were valued.

*This is an active and convenient learning method despite some difficulties with Internet connection. Through the online discussion, our experiences are shared and importantly good examples are recognized and to be applied. I think we can discuss on how to develop and apply clinical and community training. We can also explore student management and improve our professional development.*



## 7 CONCLUSIONS

The authors of this paper, having previously used AODG in the postgraduate arena with success, incorporated this approach in the design and subsequent delivery of two learning and teaching modules designed for Vietnamese nurse academics. While design and delivery of module content proved straightforward, as did the written assessment component, mandatory participation in a bilingual AODG with the other nurse academics enrolled in the module proved problematic. A post mortem conducted on the failure of the AODG identified a number of issues – the primary one being a lack of cultural awareness. While a translator is clearly a key requirement for a unit coordinator delivering a distance module incorporating AODG in a foreign language, the elements of simplicity and clarity in hand with supportive online moderation must not be overlooked. It is crucial that the flexibility of AODG but used to its full potential. For the authors of this paper condensed AODG activity combined with the freedom of posting online comments where interest lay rather than adopting a structured posting approach proved fruitful.

## REFERENCES

- [1] Beldarrain, Y. (2006). Distance education trends: Integrating new technologies to foster student interaction and collaboration. *Distance Education*, 27(2), 139-153.
- [2] Bliuc, A-M., Ellis, R., Goodyear, P. & Piggott, L. (2010). Associations between students' conceptions, approaches, and academic performance in political science. *British Journal of Educational Technology*, 41(3), 512-524
- [3] Branon, R. F. & Essex, C. (2001). Synchronous and asynchronous communication tools in distance education : A survey of instructors. *TechTrends* 45(1), 36, 42
- [4] Carr, S. (2000). As distance education comes of age, the challenge is keeping the students. *Chronicle of Higher Education*, 46(23), 39-41.
- [5] Conole, G., Fill, K.(2005). A Learning Design Toolkit to Create Pedagogically Effective Learning Activities. *Journal of Interactive Media in Education*. Available at <http://jime.open.ac.uk/>
- [6] Hannon, J. (2009). Breaking down online teaching: innovation and resistance. *Australasian Journal of Educational Technology*. 25(1), 14-29
- [7] Heilsen, S.B. & Josephsen, J. (2008). E-learning: between augmentation and disruption. *Computers & Education* 50, 525-534
- [8] Laurillard, D. (2007). Modelling benefits-oriented costs for technology enhanced learning. *Higher Education* 54 21-39
- [9] Leasure, A.R., Davis, L. & Thievon, A.L. (2000). Comparison of student outcomes and preferences in a traditional vs. world wide web-based baccalaureate nursing research course. *Journal of Nursing Education* 39(4), 149-154
- [10] Legg, T.J., Adelman, D., Mueller, D. & Levitt, C. (2009). Constructivist strategies in online distance education in nursing. *Journal of Nurse Education* 48(2), 64-69
- [11] Magnussen, L. (2008). Applying the principles of significant learning in the e-learning environment. *Journal of Nursing Education* 47(2), 82-86
- [12] McLoughlin, C. (2002). Learner support in distanced and networked learning environments: Ten dimensions for successful design. *Distance Education*, 23(2), 149-162.
- [13] Ng, C.S.L. & Cheung W.S. (2007). Comparing face to face, tutor led discussion and online discussion in the classroom. *Australasian Journal of Educational Technology* 23(4) 455-469. <http://www.ascilite.org.au/ajet/ajet23/ng.html>
- [14] Orton-Johnson, K. (2009). 'I've stuck to the path I'm afraid: exploring student non-use of blended learning. *British Journal of Educational Technology* 40(5), 837-847
- [15] Reeves, T.C., Herrington, J., & Oliver, R. (2002). Authentic activities and online learning. In A. Goody, J. Herrington, & M. Northcote (Eds.), *Quality conversations: Research and Development in Higher Education, Volume 25* (pp. 562–567). Jamison, ACT: HERDSA.
- [16] Zhou, G. & Xu, J. (2007). Adoption of educational technology ten years after setting strategic goals: A Canadian university case. *Australasian Journal of Educational Technology* 23(4), 508-528